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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/580,874	05/30/2000	Michel Ladang	192592USONPP-CONT	1709

22850 7590 01/25/2006

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1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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GOFF II, JOHN L

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/580,874

Applicant(s)

LADANG ET AL.

Examiner

John L. Goff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10,13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10,13,15 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. In view of the appeal brief filed on 11/4/05, PROSECUTION IS HEREBY REOPENED.

A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

***Claim Rejections - 35 USC § 112***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 10, 13, 15, and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 10 requires surface-crosslinking both faces of an unsupported intermediate polyolefin sheet (the faces perpendicular to the thickness of the sheet and the surface-crosslinking occurs to a degree, i.e. amount, different than the core) followed by expanding (and crosslinking) the sheet unidirectionally **only** in its thickness. The specification describes that claimed but does not provide any further direction to achieve unidirectional expansion of the sheet only in its thickness (See in particular the (only) discussion of surface-crosslinking at Page 5, lines 15-29 and Page 6, lines 10-15). The specification does not describe any working examples nor does specification describe the extent of surface-crosslinking as affecting the expansion. Applicants allege however by way of attorney argument that achieving an expansion *essentially* in only the thickness direction would have been understood by one of ordinary skill in the art to require performing surface-crosslinking to an extent that unidirectional expansion in only the thickness direction occurs wherein determining the extent of surface-crosslinking would have been routine experimentation (See Page 5, lines 21-25 and Page 6, lines 1-11 of applicants response filed 8/24/04), although it is noted applicants contend this does not apply to

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unidirectional expansion **only** in the thickness direction (See Page 7, last line of the third full paragraph of the appeal brief).

The aim of the invention is to unidirectionally expand an unsupported polyolefin sheet only in its thickness direction. Tsujimoto et al. (JP 04213341) is the closest prior art. Tsujimoto et al. disclose surface-crosslinking both faces of an unsupported intermediate polyolefin sheet (the faces perpendicular to the thickness of the sheet and the surface-crosslinking occurs to a degree different than the core) followed by expanding (and crosslinking) the sheet (See Paragraphs 30-36 and Tables 1 and 2 describing Examples 1-11). Tsujimoto et al. disclose Example 1 wherein a sheet having a thickness of 3 mm and width of 450 mm undergoes surface-crosslinking of 12% followed by expansion to produce a sheet having a thickness of 7 mm and a width of 800 mm (See Table 1), and Tsujimoto et al. disclose Example 6 wherein the same sheet having a thickness of 2 mm and a width of 450 mm undergoes surface-crosslinking of 43% followed by expansion to produce a sheet having a thickness of 7 mm and a width of 800 mm (See Table 2). **These examples show surface-crosslinking both faces of an unsupported intermediate polyolefin sheet (the faces perpendicular to the thickness of the sheet and the surface-crosslinking occurs to a degree different than the core) followed by expanding (and crosslinking) the sheet *alone* does not unidirectionally expand the sheet *only* in its thickness** as all of the Examples in Tsujimoto et al. expand in the thickness and width directions. Furthermore, **Tsujimoto et al. show varying, e.g. increasing, the extent of surface-crosslinking does not affect a more unidirectionally expanded sheet** as all of the examples expand in the width direction from 450 mm to 800 mm in addition to expanding in the thickness direction. Thus, while one of ordinary skill in the art would have been able to vary the extent of

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surface-crosslinking without requiring undue experimentation, one of ordinary skill in the art would not have expected, i.e. predicted, this to result in only unidirectional expansion.

In conclusion, the specification, claims, prior art, and level of ordinary skill of one in the art alone would not enable one of ordinary skill to unidirectionally expand a polyolefin sheet only in its thickness without performing undue experimentation.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 10, 13, 15, and 16 have been considered but are moot in view of the new ground(s) of rejection. The previous rejections are withdrawn as the prior art of record does not disclose surface-crosslinking both faces of an unsupported intermediate polyolefin sheet followed by expanding the sheet **only** in its thickness. However, as Tsujimoto et al. disclose a process the same as that claimed wherein expansion only in the thickness does not occur and applicants specification does not provide any further direction enabling expansion only in the thickness direction a new 35 U.S.C. 112 first paragraph rejection is made above.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John L. Goff



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